
Eosinophilic Enteritis presenting as Acute Intestinal Obstruction

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Citation

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Abstract

Study design: A case report

Objectives: To describe an unusual presentation of a rare disease

Setting: Department of General Surgery, Military Hospital Rawalpindi 4600, Pakistan.

Methods: A 37-year-old female with history of chronic abdominal pain presented with acute intestinal obstruction. Plain X-ray of the abdomen showed multiple air fluid levels. Exploratory laparotomy revealed a tight stricture in the terminal ileum with proximal dilatation. There was prominent mesenteric lymphadenopathy and vasculature. Resection of involved ileum and primary end-to-end anastomosis was done. The patient had satisfactory postoperative recovery and her symptoms disappeared. Histopathology of the resected specimen revealed eosinophilic enteritis with reactive mesenteric lymph-node hyperplasia.

Conclusion: Eosinophilic enteritis is a diagnostic dilemma as clinical presentation and investigations are only contributory. Presentation with acute abdomen is even rare and surgeons should remain vigilant with this rare cause in mind.

INTRODUCTION

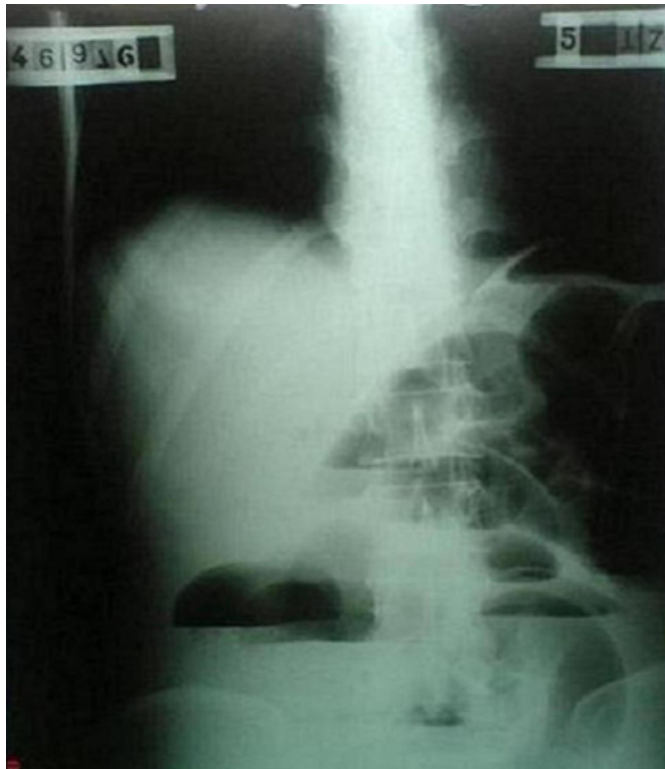
Eosinophilic gastroenteritis, first described by Kaijser in 1937, is a rare and heterogeneous condition with poorly understood etiology. The disease is characterized by patchy or diffuse eosinophilic infiltration of gastrointestinal tissue¹. The clinical features depend on location, depth and extent of bowel wall involved. Its presentation as acute abdomen is seldom². We report a case of eosinophilic enteritis with a clinical scenario of intestinal obstruction.

CASE REPORT

A 37-year-old female presented with six months history of episodic attacks of sub-acute intestinal obstruction. She was managed conservatively with success. During the last month there was gradual aggravation of her symptoms till she presented with the clinical picture of acute intestinal obstruction. Examination revealed tachycardia and dehydration. The abdomen was distended and slightly tender with no guarding or rigidity. Her blood chemistry showed raised ESR levels and slight azotemia but no eosinophilia. Multiple air fluid levels and dilated small gut loops were seen on X-ray abdomen. (Fig-1)

Figure 1

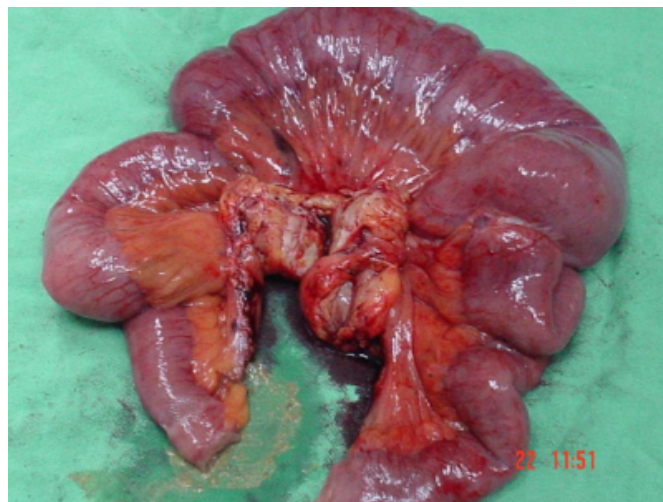
Figure 1: X-ray of the abdomen showing multiple air fluid levels



The patient was resuscitated and prepared for exploratory laparotomy. A tight stricture was found in the terminal ileum with proximal dilatation. There was prominent mesenteric lymphadenopathy and mesenteric vasculature was extending to the anti-mesenteric border of the ileum giving per-operative suspicion of Crohn's disease. Resection of involved ileum and primary end-to-end anastomosis was carried out. (Fig-2)

Figure 2

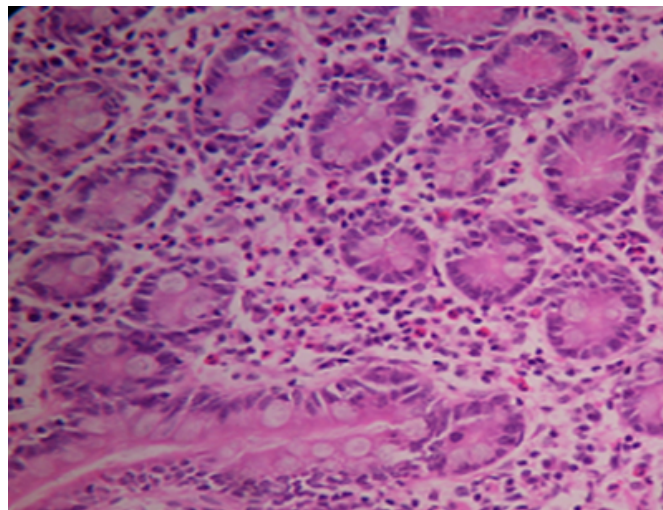
Figure 2: Resected specimen of ileum showing stricture with proximal dilatation, prominent vascularity and mesenteric lymphadenopathy



The patient had satisfactory post-operative recovery and her symptoms disappeared. Histopathology of the resected specimen revealed eosinophilic enteritis with reactive mesenteric lymph-node hyperplasia. (Fig-3)

Figure 3

Figure 3: Histopathological picture of resected ileum confirming eosinophilic enteritis



DISCUSSION

Eosinophilic enteritis is a rare clinico-pathological entity. It usually affects the gastric antrum and proximal small bowel but involvement of distal gut is rare; 85% of cases are associated with eosinophilia³. Food allergy and variable IgE response has been observed in many patients harbouring this disease⁴.

Eosinophil recruitment into inflammatory tissue is a complex process, regulated by IL-3, IL-5 and granulocyte macrophage colony stimulating factor (GM-CSF). In addition, eotaxins have an integral role in regulating the homing of eosinophils into the lamina propria ⁵.

It runs a chronic relapsing course in approximately 80% of patients and a high degree of clinical suspicion is required to establish the diagnosis of this rare pathology ⁶. Milder versions of the disease present as dull abdominal pain, anorexia, weight loss, protein losing enteropathy, chronic diarrhoea, or recurrent melaena. Acute presentation varies from acute intestinal obstruction to intestinal perforation. Malabsorptive syndrome, intestinal strictures or ascites depend on a mucosal, muscular or serosa layer infiltration, respectively ⁷.

Talley et al. ⁸ suggested three diagnostic criteria including: the presence of gastrointestinal symptoms, histological demonstration of eosinophilic infiltration in the gastrointestinal tract and no evidence of parasitic or extraintestinal disease.

Peripheral blood eosinophilia is absent in 20% of patients. Elevated serum IgE levels suggest an allergic aetiology and associated malabsorption is detected by hypoalbuminaemia ⁹.

CT scan may show nodular and irregular thickening of the gut wall which also mimicks other conditions like Crohn's disease or lymphoma. The endoscopic appearance is nonspecific. Despite all diagnostic aids, histopathology is the gold standard. Microscopy reveals >20 eosinophils per high-power field. Infiltration is often patchy, can be missed and laparoscopic full-thickness biopsy may be required ⁹.

The role of steroids and anthelmintics is not well established; however, in few cases steroids have produced symptomatic improvement in controlling diarrhea and protein losing enteropathy. Rarely, acute obstructive

presentation is dealt with laparotomy and segmental resection with anastomosis or stricturoplasty, as in our case. We did not use steroids and the patient is well after one year.

Eosinophilic enteritis is a diagnostic dilemma and clinical presentation and investigations are only contributory. Presentation with acute abdomen is even less common and surgeons should remain vigilant with this rare cause in mind.

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References

1. Kaijser R. Zur Kenntnis der allergischen Affektionen des Verdauungskanals vom Standpunkt des Chirurgen aus. *Arch Klin Chir* 1937; 188:36-64.
2. Alexander P, Jacob S, Paul V. Laparoscopy in eosinophilic jejunitis presenting as subacute bowel obstruction: a case report. *Tropical Gastroenterology* 2003; 24: 97-98.
3. Lee CM, Changchien CS, Chen PC, Lin DY, Sheen IS, Wang CS et al. Eosinophilic gastroenteritis: 10 years experience. *Am J Gastroenterol* 1993; 88:70-74.
4. Lackshaw A, Levison D. Eosinophilic infiltrates of the gastrointestinal tract. *J Clin Pathol* 1986; 39: 1-7.
5. Mishra A, Hogan S, Brandt E, Rothenberg M. An etiological role for aeroallergens and eosinophils in experimental esophagitis. *J Clin Invest* 2001; 107: 83-90.
6. Wing-Harkins DL, Dellinger GW, Lynch C, Mihos AA. Eosinophilic gastroenteritis associated with protein losing enteropathy. *J Int Med Res* 1996; 24:155-63.
7. Chaudhuri K, Dubey S, Zaphiropoulos G. Idiopathic hypereosinophilic syndrome in a patient with long-standing rheumatoid arthritis: a case report. *Rheumatology* 2002; 41:349-50
8. Talley N, Shorter R, Phillips S, Zinsmeister A. Eosinophilic gastroenteritis: a clinicopathological study of patients with disease of the mucosa, muscle layer, and subserosal tissue. *Gut* 1990; 31: 54.
9. Chen M, Chu C, Lin S, Shih S, Wang T. Eosinophilic gastroenteritis: clinical experience with 15 patients. *World J Gastroenterol* 2003; 9: 2813-6.
10. Alexander P, Jacob S, Paul V. Laparoscopy in eosinophilic jejunitis presenting as subacute bowel obstruction: a case report. *Tropical Gastroenterology* 2003; 24: 97-98.

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